LISTING OF CLAIMS:

Claims 1-2 are canceled.

Claim 3. (Previously presented) An apparatus having a refrigeration cycle, comprising:

a shell forming a closed space;

a compressor located within the shell;

an induction motor having a rotor and a stator having a plurality of stator poles with stator windings associated with each stator pole, the motor being coupled to compressor to drive the compressor;

wherein the rotor is located within the shell, and the shell is welded to the stator poles such that a portion of each stator pole is located within the shell and the stator windings are located outside the shell.

Claim 4. (Previously presented) The apparatus of claim 3, wherein the portion of the shell welded to the stator poles is composed of non-magnetic material.

Claim 5. (Previously presented) The apparatus of claim 3, wherein the portion of the shell welded to the stator poles is composed of diamagnetic material.

Claim 6. (Previously presented) The apparatus of claim 3, wherein the stator poles are laminated structures, and the laminated structures of each stator pole are welded together to prevent a refrigerant gas from leaking between the laminated structures of each stator pole.

Claim 7. (Previously presented) The apparatus of claim 3, wherein each stator pole includes a small gap such that the portions of the stator poles outside the shell may be removed from the motor.

Claim 8. (Previously presented) An induction motor system, comprising:

a shell;

an induction motor having a rotor and a stator having a plurality of stator poles with stator windings associated with each stator pole, wherein the stator poles are laminated structures, and the laminated structures of each stator pole are welded together to prevent a gas from leaking between the laminated structures of each stator pole;

wherein the rotor is located within the shell, and a first portion of the stator poles is located within the shell, and a second portion of the stator poles are located outside the shell such that the stator windings are located outside the shell.

Claim 9. (Previously presented) The induction motor system of claim 8, further comprising a compressor located within the shell and coupled to the rotor, wherein the shell forms a closed space for a hermetic system.

Claim 10. (Previously presented) The induction motor system of claim 8, wherein the shell includes non-magnetic material.

Claim 11. (Previously presented) The induction motor system of claim 8, wherein the shell includes diamagnetic material.

Claim 12. (Canceled)

Claim 13. (Previously presented) The induction motor system of claim 8, wherein each stator pole includes a small gap such that the portions of the stator poles outside the shell may be removed from the motor system.

Claim 14. (Currently Amended) A method of constructing an induction motor system, comprising the steps of:

forming a shell around ~~the~~ a rotor of an induction motor;

welding the shell to the stator poles for a stator of the induction motor, wherein a portion of the stator poles are located inside the shell, the stator windings associated with each stator pole are located outside the shell;

cutting each stator pole such that the portions of the stator poles outside the shell may be removed from the motor.

Claim 15. (Previously presented) The method of claim 14, further comprising the step of coupling the rotor of the motor to a compressor, wherein the shell forms a closed space for a hermetic system, and the motor and compressor are located within the shell.

Claim 16. (Previously presented) The method of claim 14, wherein the step of forming the shell further includes the step of fabricating the shell from a non-magnetic material.

Claim 17. (Previously presented) The method of claim 14, wherein the step of forming the shell further includes the step of fabricating the shell from a diamagnetic material.

Claim 18. (Previously presented) The method of claim 14, wherein the stator poles are laminated structures, and further comprising the step of welding the laminated structures of each stator pole together to prevent a gas from leaking between the laminated structures of each stator pole.

Claim 19. (Currently Amended) The method of claim 14, ~~further comprising the step of cutting each stator pole to form a small gap such that the portions of the stator poles outside the shell may be removed from the motor~~ wherein a gap is formed between

the stator poles located inside the shell and the stator poles located outside the shell after the step of cutting.

Claim 20. (New) An induction motor system, comprising:

a shell;

an induction motor having a rotor and a stator having a plurality of stator poles with stator windings associated with each stator pole;

wherein the rotor is located within the shell, and a first portion of the stator poles is located within the shell, and a second portion of the stator poles are located outside the shell such that the stator windings are located outside the shell, wherein the stator poles include a gap such that the portions of the stator poles outside the shell may be removed from the motor system.

Claim 21. (New) The induction motor system of claim 20, further comprising a compressor located within the shell and coupled to the rotor, wherein the shell forms a closed space for a hermetic system.

Claim 22. (New) The induction motor system of claim 20, wherein the stator poles are welded laminated structures.

Claim 23. (New) The induction motor system of claim 20, wherein the shell is welded to the first portion of the stator poles.